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INTESTINAL ANASTOMOSIS FOR FECAL FISTULA IN THE LUMBAR REGION.

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A WOMAN gave a history of having had an abscess opened on the left side, posterior to the crest of the ileum, in April or May, 1897. When admitted to the Woman's Hospital in the summer of 1897, there was a fecal fistula discharging a large amount of feces, and great burrowing of fetid pus beneath the tissues over the posterior part of the ileum on the left side. The woman's condition was very bad. Dr. Fullerton made a large incision to evacuate pus and cleanse the cavity, put the patient on tonic treatment, and had the bowels thoroughly opened by enemas and small doses of castor-oil.

When I first saw the woman, in the fall, her condition was greatly improved, though there was still considerable leakage of feces at the lumbar opening. The greater portion of the feces was discharged through the anus. There was felt in the left side of the abdomen a hard mass about on a level with the anterior superior spine of the ileum. The mass seemed to the examining fingers to be about the size of a hen's egg. On October 15th, operation was done for the purpose of closing the fistula. I made a four-inch incision through the anterior abdominal wall a little outside of the left semilunar line directly over the mass, which was felt within the abdomen and which was believed to be smaller than when the patient was admitted. There were found adhesions of omentum to the abdominal wall, and also between the sigmoid flexure of the colon and the small intestines. The hard mass which had been felt by palpation was caused by these adhesions around the seat of an inflammation, evidently due to some condition within the sigmoid flexure. Careful separation of these adhesions and the insertion of a large sound into the fecal fistula, proved that the opening into the gut was posterior to the peritoneum, where the colon is normally adherent to the posterior abdominal wall. The abdominal wound was then temporarily closed by the insertion of sutures, which were not tied, and the application of a large dressing.

The patient was then turned on her face and a long incision made through the tissues surrounding the fecal fistula. The opening into the colon was readily found at the bottom of this deep wound. A finger inserted into the gut showed a condition of stricture which, however, was not very marked. A longitudinal incision was made in the colon, extending upwards from the fistula, and I was thus enabled to examine carefully the diseased intestinal wall. The mucous membrane was nodular, and thickened for a distance of about an inch. A small portion of this nodular material was cut away and preserved for microscopic examination. The appearance of the abnormal mucous membrane and the sensation it imparted to the fingers, resembled what found in malignant disease of the rectum.

It was evident that it would be useless to attempt to close the fistula in the colon, because the strictured condition would prevent the free passage of intestinal contents into the rectum. It was also evident that it would be impossible for me to successfully scrape away the diseased tissue; though its extent was very limited, being from the upper to the lower border not more than an inch in length. I did endeavor to remove some of this tissue by scraping, but found that I quickly broke through into the peritoneal cavity in front. I therefore turned the woman on her back and performed with ease

an intestinal anastomosis with a Murphy button, so as to throw the portion of intestine in which the disease was situated out of use. The sigmoid flexure below the seat of disease was drawn up as well as could readily be done, but there was not much room between the disease and the top of the rectum. The portion of gut above the seat of disease was very movable and the anastomosis was made so as to unite a point about four inches below the fistula with a point about eight inches above. The anterior wound was then closed in the usual manner, the posterior wound lightly packed with gauze without any attempt to stitch up the incision in the posterior wall of the cecum which extended upward from the abnormal opening.

The small opening from the intestine into the peritoneal cavity which I had made in my effort to remove some of the diseased structure for microscopic examination was not covered by stitching the peritoneum over it because this seemed to be difficult of accomplishment. The raw surface made by separating the small intestine from the colon at the seat of disease was covered as well as possible by drawing the surrounding peritoneum over it.

It was questioned whether the disease in this case was malignant, tuberculous, or syphilitic, or a simple ulceration. The ulcerative perforation backward evidently took place because of the occurrence of the disease which produced the stricture. As far as I had been able to make out the woman had no special trouble until the swelling and abscess occurred. The fact that there was no disease external to the rectum on the peritoneal side, except such adhesions as occur in any inflammatory process involving the coats of the intestine, seemed to point to the original condition having been a non-malignant one. The clinic history resembles that which would belong to a case of simple ulceration of the bowel causing a localized peritonitis. There appeared to be no disease in the abdomen, except that around the focus of the stricture in the colon. I mean by this that the intestines looked normal and that there was no pus and no evidence of tubercular involvement of the neighboring bowel. I must admit, however, that no special search was made in the pelvis or other regions because everything appeared to be centered at the one point. The woman's great improvement in health during the several months that she was in the hospital before operation also seems to point to the non-malignant character of the stricture. It was my hope that putting the ulcerated portion of bowel at rest by the formation of the anastomosis might lead to cicatrization and cure of the diseased mucous membrane and that this would permit the fistula to heal perhaps spontaneously.

The portion of tissue removed from the ulcerated area was sent to Dr. Marie K. Formad, the pathologist of the hospital. She reported as follows:

"The specimen sent to me, a piece of tissue removed by you from the colon of Miss L., I examined microscopically and found it to be a simple inflamed tissue. There is no malignant disease present. The reason of the delay of my report was due to the fact, that, as it is a very peculiar-looking specimen under the microscope, and at the same time such an important one, I felt that I wanted the advice of some one else, too, so I had three pathologists look at it and all were of the same opinion, that it does not show any malignant change, but is simply inflamed tissue."

The patient improved in general condition, but the fistula remained open.

On January 14, 1898, the second operation was performed because the fecal fistula in the lumbar region was still unclosed. The evacuations of the bowels took place partly through the lumbar anus, and partly through the normal route. It was easy to wash out the bowel from the artificial anus to the normal anus. The patient's condition was good, and I determined to endeavor to cure the condition by a radical intraperitoneal operation. The abdomen was opened at the seat of the old incision, the colon divided a short distance above and a short distance below the seat of artificial anus. The two ends were then united by a Murphy button, and the junction strengthened by a continuous suture. The portion of bowel attached to the posterior wall containing the abnormal anus was then removed with only a moderate amount of hemorrhage.

During these manipulations the ends of the bowel were closed by strips of gauze used as clamps to prevent extravasation of

feces. I discussed the propriety of leaving the diseased portion of intestine in place and closing the ends by suture. I, however, feared that the growth which had caused the original stricture might be malignant, notwithstanding the favorable microscopic report. The possibility of malignant disease was in my mind increased by the fact that the mass seemed to me rather larger when felt through the intestinal wall than it had at the time of the previous operation. It had apparently not decreased nor was the condition improved by specific medication to which the patient had been subjected.

The removal of the diseased section of gut increased the time of operation, because of the protracted manipulation due to the adhesions which had to be separated before the end-to-end anastomosis could be made. The impossibility of turning the ends of the bowel out of the abdominal wound for manipulation, which was due to the fact that the colon was fixed in the depth of the abdomen, rendered infection of the peritoneal cavity probable.

My final decision was that it was necessary to attempt the radical procedure and remove the diseased intestine. This was done with great satisfaction, as far as the mechanical results were concerned; and a drainage-tube inserted through the posterior wall of the abdomen at the seat of the former artificial anus.

The patient was a good deal shocked, notwithstanding the administration of strychnin, digitalis, and oxygen during the anesthesia. She showed some signs of reaction, but died the next day with almost complete suppression of urine, and a temperature which reached 103°. Death was evidently, I think, due to septic contamination of the peritoneal cavity from the mucous membrane of the intestine exposed during the necessary section of the gut.

An examination made, after the operation, of the mass removed proved that the growth involving the bowel was malignant. This pathologic diagnosis was confirmed by two independent histologic examinations. The specimen removed at the first examination was evidently taken from a non-malignant part, or the growth finally underwent malignant degeneration.